# POLITICAL LEADERSHIP GENDER GAP Justine Keller Parsons The New School for Design

Submitted to the **School of Art, Media and Technology**, in partial fulfillment of the requirements for the degree of **Master of Science** in **Data Visualization** at **Parsons The New School for Design**.

May 2016

#### **Thesis Faculty**

Aaron Hill Daniel Sauter

#### **Visualization Website**

http://thesis-kellj579.c9users.io/MajorStudio2/index.html

#### TABLE OF CONTENTS

- 0. Synopsis (Abstract)
- 1. Introduction
- 2. Treatment
  - 2.1. Political Leadership Gender Gap
  - 2.1.1. Root Causes
  - 2.1.2. Perception
    - 2.2. Methodology
      - 2.2.1. Data Sets
      - 2.2.2. Data Analysis
      - 2.2.3. Iteration and Visualization Design Process
    - 2.3. Visual Interpretation: Final Version
- 3. Conclusion
- 4. References and Resources (Bibliography)
- 5. Appendix

#### 0. SYNOPSIS (ABSTRACT)

#### Political Leadership Gender Gap

While 92% of girls believe anyone can acquire the skills of leadership, only 21% believe they currently have most of the key qualities required to be a good leader (Schoenberg, Salmond, Fleshman 2008, 14).

Political Leadership determines the outcome and direction of a country. Diverse political leadership ensures accurate representation of the population. In the United States, a large gender gap exists in political leadership. Women gained the right to vote 97 years ago; nevertheless in federal and state politics, there is a large gender gap (Pew Research Center 2015).

I was inspired by this quote to delve deeper into why this discrepancy and ultimately the political gender leadership gap exists. Girls and women are often not viewed in society as strong leaders, not only by boys and men, but by themselves as well. In order to break away from this societal view of only men are capable of being strong leaders; society needs to become aware of these perceptions of women leaders, and their impact on political representation. The perception of girls and women as leaders reflects the gender gap in United States political leadership.

This visualization explores those connections, comparing the perspectives of women, men, boys and girls, to the number of men and women in various political entities. Allowing for these multiple comparisons and views, allows for a more compressive look at how social construction of gender in regards to leadership, is reflected in the gender gap of elected officials.

This paper also explores the process and methodology used to collect data, analyze the data, and visually communicate the data through the visualization. This analysis also includes Iterations and user testing.

#### 1. INTRODUCTION

While 92% of girls believe anyone can acquire the skills of leadership, only 21% believe they currently have most of the key qualities required to be a good leader (Schoenberg, Salmond, Fleshman 2008, 14).

The perception of girls and women as leaders reflects the gender gap appearing in many different forms of leadership. In the United States, the gender gap is decreasing in education and the workforce; however, the gap persists, especially within leadership roles. Women gained the right to vote 97 years ago; nevertheless the United States has yet to have a woman President and women hold less than 20% of seats in congress (Pew Research Center 2015). This lack of women in leadership roles, leads to a lack of representation of half of the population and differing viewpoints.

This quote inspired me to delve deeper into why girls feel as though they cannot be leaders. It also motivated me to look at who are the current women leaders and if there are enough to be role models for these girls. Who can empower these girls to see leadership qualities within themselves? Unfortunately, women have very few governmental leadership roles. Government is the powerful entity that needs leaders to make positive change and lead a county, state, or nation. Women are seen as having the skills (Pew 2015), but gender bias comes into play. If girls do not see these skills within themselves, who will eventually, start to run for office in the future? A better understanding of the political gender leadership gap, would provide insight on why this phenomenon is occurring.

My thesis takes a detailed view on how perception and actually intersect. It aims to create a new visual language to understand and compare differing multivariable data sets. This thesis visualizes the comparison of the preference of gender of a political leader and the reality of the percentage of a particular gender in an office of government in America. It aids as a tool for better understanding and deconstruction of gender leadership in politics.

Girls and women are often not viewed in society as strong leaders, not only by boys and men, but by themselves as well. In order to break away from this societal view of only men are capable of being strong leaders; society needs to become aware of these perceptions of women leaders. The existence of the gender gap in society is well documented in a number of studies. The next step to raising awareness and lessening the gender gap is to understand how perceptions develop and how those who can vote are affecting the gap.

Connections between biases and perceptions of women leaders have aided in remaining the gender gap. A fear exists within many girls of not being liked, if they were to take on leadership roles (Schoenberg, Salmond, Fleshman 2008, 19). This fear is just one aspect of girls' leadership bias. Adults have also been shown to have a bias toward women leaders. Perception of women leadership is contributing to the lack of women leaders. 53%

of the public, both male and female, believe that women, in the foreseeable future, will not be able to obtain as many top executive business positions as men (Pew Research Center 2015). In uncovering the details beyond how the social construction of women leaders has emerged, solutions can be found to further diminish the gender gap.

The studies used concern the perception of women in leadership from a younger view point and an adult view points, as well as a look into the current gender gap discrepancies in political entities. Data sources used include: the Pew Research Center Survey, Girl Scout Research Institute Report, Making Caring Common Project, and the American Center for Progress.

#### 2.1. ROOT CAUSES

Women gained the right to vote in 1919, yet almost 100 years, women hold few political leadership positions. It has been projected that until 2085, women will not have parity with men in key leadership roles in the U.S. (Pew Institute 2015). This paper and visualization will explore how we define leadership and gender as a society and how that in turn affects this gender discrepancy, with a strong focus on a comparison between perception and actuality.

In order to understand the gravity of the gender gap and be able to explore solutions, we need to establish a definition of gender. In American Society, gender is created by one's expectations of and interactions with others as well as one's actions within their structures (Lorber).

Life experiences shape our personalities, feelings, motivations and ambitions (Lorber). Since interactions are altered by one's perceived gender, all four are shaped by society and interactions to match a certain gender. Thus, this perceived gender often shapes personality, feelings, motivations and ambitions and guides them to fit certain genders. Men are thought to be strong. In contrast women are thought to be weak, because a patriarchic society puts men in control and attributed the more powerful traits. Femininity is also associated with being agreeable, likable, and quiet. Power and control are often seen as strong leadership qualities. This connection between this masculine trait and how society sees leadership is one root cause reason for the gender gap.

Leadership is the power or ability to lead other people. Leadership is thought of as a voice and a direction for a group. Leadership is a way of organizing, communicating, and achieving an objective by leading others. Leadership holds more meaning to us than just the ability to lead others. A strong leader is thought of to hold certain qualities in order to successfully lead others to accomplish a goal. Certain characteristics often come to mind, when leadership is discussed. Ultimately, the goal of leadership is to have a collective group reach a goal. A leader is meant to inspire. We most notably see leaders as a figurehead that will spear head an action. Leaders are often seen as strong, vocal, and confident. This person is in the front and whose words inspire others to reach a goal. These characteristics mirror the social construction of masculinity in the United States.

Strength is one of the main characteristics associated with men, and is also mirrored in leadership characteristics. Political leaders are often the example one draws to, when thinking of a leader. Political leaders are meant to be strong and guide a group of people they represent, thus reinforcing the idea of power and strength defines leadership.

Even though this strong, powerful version of leadership is often how leadership is defined, there are many characteristics associated with leadership and how to accomplish a goal though leading. The Leadership compass is a leadership exercise that references four types of leaders; warrior, teacher, healer, and visionary. The warrior associated with power, is that strong leader discussed earlier. This leader is the motivator. However, this type of leader is not always the most effective in completing a task. This type of leader tends to push forward and can miss certain details. This type of leader tends to be the loudest and most promenade, thus continuing the idea that this is the ideal leader; however, there are other types of leaders. The leadership compass also shows the teacher, healer and visionary as these other types. Healer is associated with love and the ability to make everyone feel involved, is concerned with emotions and ethics. The teacher is associated with small details, is wise and keeps everyone organized. The visionary is the big picture leader who is innovated and drives the vision. Ideality leaders possess some of multiple qualities, but not all these leadership types. Often multiple leaders are needed on a team to fulfill these roles. The Healer is often associated with emotions and thus relates to the social construction of women. While this leadership type fits with the social construction of women, it is not as quickly associated with leadership as the warrior. Emotion is often noted as a negative in leadership.

Although personality, feelings, motivations and ambitions are shaped and affected by perceived gender roles, it is important to note that there are other factors, both environmental and biological that effect these traits, characteristics and behaviors, hence gender does not determine one's aptitude in being an effective leader. In addition, leadership is not just achievable through one personality type. Leadership can be effective through different means. Although leadership is generally perceived as needing certain characteristics, different characteristics can have an impact, and sometimes is a better fit for the situation. Gender does not define good and effective leaders; however our prepetition of one's gender leads to certain expectations and assumptions, which does influences one's opportunities to become a leader.

Gender and leadership has an impact on how leadership is associated and perceived. This perception comes into place in determining the root causes of the leadership gap. Many of the reasons girls expressed of why they do not want to be leaders, follows this social construction of gender. Confidence in their skills and competencies had the largest impact on a girls' desire to become a leader.

Girls who noted that they were not interested in leadership noted the following the following reasons as why they would not want to pursue becoming a leader: lack of confidence; stress; fear of public speaking; fear of embarrassment; fear of seeming bossy; and negative peer pressure. We can see the reflection of gender construction on the

reasons girls do not want to become leaders, or do not think they hold the skills to become a leader.

Confidence is often associated with strength, which is seen as a masculine trait. One third of girls, who do not want to pursue leadership, attributed that to not wanting to be laughed at, make anyone mad, come across as bossy, or not being liked by people. Girls and women often try to fulfill the famine idea of being likable and agreeable. This is reflected in these reasons not to be a leader. Leadership is seen as a risk to come off as unlikable. Thus many girls are pushed away from leadership.

Girls and boys do not think there is an inherent difference in abilities. Many do see the difficultly for women to become a leader, when compared to a man. Those aware of this discrepancy tended to be female. Within leadership experiences, girls experience more satisfaction from learning and boys obtain greater satisfaction from being in charge. This reflects the ideas of gender roles.

I will focus mainly on men and women in this thesis. Transgender and other definitions of gender are often not included in these discussions, and thus difficult to give a clear look about how leadership affects transgender and other forms of gender. Further study is needed and in the further should be included in these conversations of gender and leadership.

#### 2.1.2. PERCEPTION

Perception and preference are discovered through experiences and environment. Gender basis are apparent throughout the surveys. Preferences that show these biases are highly documented across gender research. This bias is holding back girls from becoming leaders and closing the gender gap (Lean Out Report 2015).

Perception collected from two surveys and reports (Pew Research Center Survey, Making Caring Common Project/ Lean Out Report) focusing on gender bias include no gender preference, male political leader preference and female political leader preference. All of the preferences lead to a perception of who these groups think should hold political office seats.

Those apart of the workforce or political system see firsthand the discrepancies in leadership. While often the privileged group has difficulty seeing discrepancies, show in the younger perception, where girls had a stronger sense of the gender gap, the same is true with those apart of the workforce. However, the numbers of women political leaders clearly indicates the existence of a gender gap.

Separating data by gender allows for the perspective of those discriminated against and those in the privileged group to show. The men and boys have a strong partiality than their same age female counterparts. The gender separation was necessary due to gender content.

I chose to also include age as a factor to sort and separate data. The perception of who makes better political leaders is often shaped by experience. Including, both younger

generations who are still in school and developing, as well as the voting population of adults, provides different insights. Women and men showed less overall bias than the girls and boys surveyed.

#### 2.2. METHODOLOGY

Data Visualization at is a way to communicate data information through a visual medium. My goal in this thesis project was to find a new visual way to communicate a complex data concept, clear and concisely. In order for data to be impactful, one need to find the visual tool that best portrays the information, and can tell a story with the data for the reader to easily follow.

I found many different surveys and datasets through my research concerning the leadership gender gap. I narrowed down my focus and goal to show a comparison between two different types of datasets: surveys and census charts. These two types of data sets had different focuses, one was more qualitative and one was more quantitative. I further chose my datasets carefully and analyzed them, extracting the data I needed to compare. I aimed to stay as objective as possible when extracting the datasets.

I created a data structure, to organize and utilize the data, as well as a design language. Both the visual and the data structure had to work together simultaneously to transfer the data into a clear illustrated idea. I then made iterations, working closely with the data visualization major studio class, as well as other. I utilized their help to user test more clearly display the information visually.

#### 2.2.1. DATASETS<sub>1</sub>

My goal in narrowing down my studies was to find studies that had a common language, were large enough to limit bias, and provide a new viewpoint on leadership. I settled on a Harvard study, Making Caring Common, which had a younger sample, a Pew study with an adult sample, and census fact statistics compiled in the American Center for Progress Report.

Many reports had similar focuses on gender gap in leadership. The Making Caring Common report and the Pew study both were survey based. I wanted surveys to bring in a social aspect to my data. The Making Caring Common study focused on high school and middle school students and how each gender perceived the best gender for political leadership. The Pew study focused on a similar perception of political leaders, but with a sample of men and women 18 and older. Both studies provide insight into perception of the political gender leadership gap, however, both needed to be shown separately. The age difference had different results. The younger group is growing up and perceiving the world around them, often through technology. As middle schoolers and high schoolers develop and have certain values reflected and reinforced, their view point on gender leadership is shaped. At this time, they are often living with parents who have ensiled values and ideas

upon their children. On the other hand, students are starting to develop their own point of view. Having this young perspective provides a look at how the next generation of voters is being shaped and is viewing the political world. The Pew study was equally as important to include within my research; this study focused solely on the voting population. Adults have the direct ability to change who is in political office within the United States. This direct affect can change how one views leadership, as well as having more experience. Limiting my research down to three reports, narrowed down my focus to perception of the gender leadership gap in politics compared to the numbers of women leaders who currently hold a position in office.

When narrowing down my dataset I wanted datasets with large samples. These studies are US based and have similar categories, including political leadership. I had to make sure the two studies were similar enough to get to be able to make a comparison and use them in the same visualization. These studies had similar questions and categories of organizing data. However, it should be noted that regardless of the similarities, they are different studies conducted by different organizations. An inherent difference is inevitable. Nevertheless, I am not directly having the data from the two studies interact. Each survey pulls from different samples, which was necessary to give different perspectives. Both surveys were conducted in 2015. It is also important to note that the census or Center for American Progress data draws from numbers in office, which is a concrete quantitative number, and does not change across data sources, with the exception of time.

International data was also considered. I found a number of studies with large datasets, which had visualized the gender gap. The sets were too large and difficult to compare to local datasets. In future development, this tool could be used to display international data, including a country comparison.

#### 2.2.2. DATA ANLAYSIS

The survey data sets provided multiple variables to consider and compare. When sifting through the different survey and data on gender bias in leadership, multiple categories of data seemed to become common. The current state of politics is well documented, with many statistics used in reports and paper to show proof of the gender gap. Another theme in the data was perception survives and interviews. Surveys and interviews focus on viewpoint, basis, and awareness. Survey data is often put on a scale or has more of a narrative form. These large surveys were analyzed and complied to give a percentage of people who preferred a male leader, preferred a female leader, or showed no preference. Since perception and viewpoint contribute toward for whom one votes, I wanted to compare both sets of date types. I had seldom seen both used in conjunction of one another.

In order to make a comparison between two radically different datasets, I need to be able to use the connecting thread of gender. The gender break down occurred across all three sets of information. Also the gender and age group of those observing were variables

I wanted to include, which I wanted to separate out, due to the different data results and show the different perspectives, as is discussed above. Lately I wanted to compare the three variables of political gender preference, female preferred, male preferred, and no preference, with the binary variables of political gender breakdown. All three preferences shed insight on the political gender breakdown. These datasets line up and give an interesting insight by way of comparison.

Thus the largest challenge of the analysis was how to compare two variable dataset of political leadership gender to a three variable dataset of perception of gender. No gender preference has multiple implications: general non-bias, uncaring, preference varies, etc. I could not discard the nonbiased data. No gender preference was also the largest dataset and thus leaving out those responses drastically alters the information being conveyed, as well as leaving out important comparisons to political reality.

In order to organize the variety of data types and variables, I decided to structure the data into different sections. I focused on diving deep into different variable types, without losing the comparison. I separated the data into political entities, then into the group being surveyed and then lastly into male focused and female focused. The male focused section included percentages of male preference, percentage of men comprising the political group and the non preference percentage of women comprising the political group and the non preference percentage.

#### 2.2.3. ITERATION AND VISUALISING PROCESS

In developing a clear design and data structure, my goal was to display the information in a way that was easy to understand and stayed as true to the collected data as possible. The challenge in the multivariate datasets translates over to the design as well. Design and data structure had to work together, with the purpose of deciphering the meaning of the data and the comparison into a visual story. The classical bar carts, scatter plots and pie graphs although are easy to understand, due to the common language, are limited in the type and amount of data being shown. Data visualization creates new languages that are costume built for the data, and have the potential to show new insights. I also needed to focus my topic more and understand what data was at my disposal and how to utilize the data.

Due to the challenge of different variable sized data sets, my data structure drastically changed throughout the design process. I had to combine multiple data sets through data analysis, which provided a challenge of how to portray that information without losing the meaning of the comparison. I user tested my designs to understand how a new visual form is perceived, and altered my design and structure to be able to more clearly communicate the data. Since I was balancing a number of variables, understanding the language was critical. I continually showed those who knew the work the updates, and brought in new users to shed a new prospective. My main idea remained the same, but the

visual language became clearer with iterations, and when iteration became less clear I would return to the previous design.

My first design<sub>2</sub> focused on overlays to make comparisons. This was my language throughout my design process, but my data structure and form changed to focus on the data I wanted to highlight. While the boxes can easily be read similar to a bar chart or tree graph, I wanted to add a layer of complexity and association by allowing multiple variables inhabit the same space. The first visual was well received, but two boxes which added up to 100% overlapping was confusing in meaning, and it didn't have the comparison I wanted, except in a sentence at the top and a composite graph that was too busy to understand.

Other iterations of design I looked into root cause data as well. I decided to focus on the comparison between perception and actuality instead of bringing in a different language to show two different sets of data, or using a similar language and confusing the two together. By focusing my data and narrowing down my datasets, I was able to have a clearer vision and in turn show better and more concise visuals.

My next major iteration<sub>3</sub> focused on overlapping boxes showing the two data sets and employed typography to identify the boxes. The text was strong, but with multiple boxes and variables I needed to be careful about how the text overlaid the boxes. I also had extra space in the boxes to show separation and allow for text, but that space started to be read as information. It was also unclear because the boxes were all different sizes that they added up to 100%. I knew I had to create a visual language that utilized better known visual language along with my overlapping technique to portray the comparison.

I developed the box language<sub>4</sub> that equaled 100% and showed men and women preference for women with the female political entity data. I also was trying to discover how to show the neutral data. I knew it had to be shown with both the men and women in the given political entity. I placed them off to the slide which altered their meaning by displacing them and disallowing them to be connected to the data. I considered not having the non-preferred data, but losing that data would have changed the whole perception of the data. The non preferential data still holds meaning and if political leadership reflected that view point the percentage of those in office would be in the middle of that non preferential data.

Another important step to my feedback and iteration was my actual data separation. I had tried to make it simple, but I was showing men and women's perceptions in the same visual block<sub>5</sub>. I decided to split up the boxes to give each perspective its own space. I also realized that part of the 100% not being easily communicated because with two boxes with related information next to one another that add up to 100%, but not showing that addition was harder to see the connection. I decided to flip one of the visuals upside down to show adding to 100%, and also for cross references between the multiple visuals<sub>4</sub>.

Color became very important as I wanted to create a more human centered design<sub>5</sub>. I wanted to bring in light colors that reflect where we should be pushing to go. I decided to incorporate green-blues, oranges and grays in order to move away from traditional

gender colors. This pastel pallet makes the visual more welcoming and accepting. I also wanted to bring in colors that were on opposite sides of the color wheel, to represent the two binary genders as well as the opposite and empty spaces in my visualization. The gray I used across all visualizations to represent actuality of gender in government. The orange I assigned to females and the green-blue to the males. This is replicated in all gender related pieces. The gender of the survey demographic matches their gender and the color behind the boxes.

I revaluated my data and my message for some of my final design concepts. I came back to my original inspiration. I decided that this topic needed to be more accessible and bring in some human centered design. I wanted to bring in the statistic to give the data perspective. On top of the general inspiration sentence, I wanted to have each box display to display in a sentence to bring in a clearer and more relatable.

Since the data shown was all in percentages, communicating visually percentages meant showing where the 100% mark would hit in the boxes, something my original boxes lacked. I put a color box background aided in representing the 100% without distracting too much from the overall visualization. I also made sure the boxes were square to help show the 100% accurately.

For each iteration, I focused on creating communication between the data and the reader. I took feedback in how different users interpreted the data in order to bring about the clearest design. Simplification and further division aided in developing a visual communication, since the comparison was so complex, breaking down the visual into many components proved the easiest to understand. Another challenge however with simplification was that I needed a clear way to communicate the visual language. A key seemed appropriate and to break down the visualization.

#### 2.3. VISUAL INTERPRETATION: FINAL VISUAL TOOL

My final tool developed was a visual that could be viewed at a macro, static level or at a micro, dynamic level. The visualization compares the preference or non-preference of each gender as a political leader to the corresponding gender political statistic. The solid background gray box represents the percentage of that particular gender in a political entity. The overlaying box outlines represent the preferences and non- preferences with the lighter colored boxes representing the no preference. This is done for both genders across women, men, girls and boys, and then for six different United States political entities: Senate, House of Representatives, State Legislators, Governors, US Federal Court Judges and US State Court Judges.

Both the static and dynamic versions use the same visual language except for the type. The static version, allows for a quick glance across all the perspectives and government entitles. This basic overview could be displayed on the web or as a print. The top depicts the inspirational sentence and a key for understanding the data language, which each subsection of data marked by a title underneath.

The dynamic version allows for personal exploration and discovery. A closer look at each visualization section, allows for a critical view. Hovering over each box reveals text describing the exact statistic of each part of the visualization, along with a sentence depicting each full visualization piece's full meaning. The sentence humanizes the data and adds clarification to the visualization.

I also created six additional visualizations that are collapsed versions of the two governmental census datasets and the four perspective datasets. I included these overviews in order to show the bigger picture. Although the static version covers all the data, it is spread out in the same form as the dynamic form. These overviews give insight into the datasets as wholes, without comparisons between one another. Overlaying and comparing datasets gives new meaning, thus to make sure the original intent was not lost, giving an overview using the same language as a whole was important.

My final visualization is a great interactive tool that can be used to further explore the political leadership gender gap. It allows for anyone to explore and draw one's own conclusions. Over all a gender gap and perception bias are clear, but the subtle discrepancies within the data and the number of comparisons that could be drawn will be discovered by the user. This tool's purpose is to relay the data, and let the audience draw their own conclusions, and discover why there is a gap in order to reduce it.

#### 3. CONCLUSION

Gender bias is well documented within US political leadership. However, understanding where that bias originates from and how bias continues to occur proves to be more obscure to obtain. My visualization brings together the qualitative perspective with the quantitative actuality, to show how gender bias is reflected in politics.

Confidence and building up leadership activities for young girls to achieve would aid in lessening the gender leadership gap (Change it Up!). Awareness and highlight different leadership skills will aid and contribute toward more girls and eventually women pursuing more leadership roles. Not only does confidence play a role, but just awareness. Across all categories, women, men, girls, and boys shows a high bias toward male leaders. Understanding this bias and utilizing this tool to better understand our perceptions, we can work toward changing our perspectives. As a society, we create these perceptions and we have the ability to alter them.

While the political gender gap has been widely studied, it has become important to display information in new ways in order to gain new insights and perspectives. In comparing different variable datasets, the political gender gap can be better understood and compared across political entities, genders, and ages. By visualizing the comparison between perception and actuality, a new sense of understanding and awareness of the political leadership gender gap emerges.

#### 4. REFERNCES AND RESOURCES (BIBLIOGRAPHY)

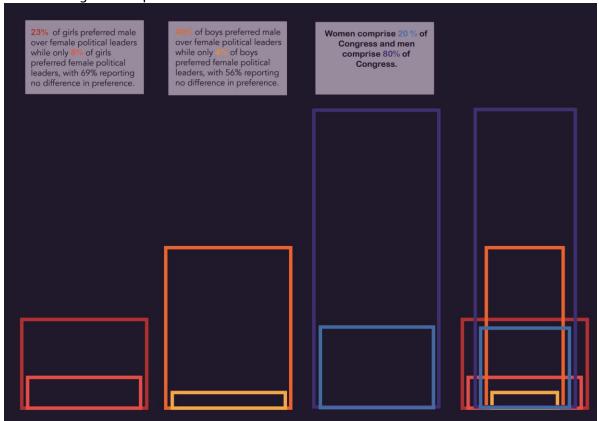
- Arrien, Angeles. The Four-fold Way: Walking the Paths of the Warrior, Teacher, Healer, and Visionary. San Francisco: HarperSanFrancisco, 1993.
- "Leadership." Encyclopedia Britannica Online. Accessed May 23, 2016. http://www.britannica.com/topic/leadership.
- Lorber, Judith. ""Night to His Day": The Social Construction of Gender." In The Social Construction of Difference: Race, Class, Gender, and Sexuality, 54-65.
- "The Women's Leadership Gap." American Progress. Accessed April 05, 2016. https://www.americanprogress.org/issues/women/report/2015/08/04/118743/the-womens-leadership-gap/.
- McIntyre, Joseph, Alison Cashin, Trisha Ross Anderson, Jennifer Kahn, and Luba Falk Feigenberg. "Leaning Out: Teen Girls & Leadership Biases." Leaning Out: Teen Girls & Leadership Biases. 2014. Accessed April 05, 2016. http://mcc.gse.harvard.edu/leaningout.
- "No Ceilings: The Full Participation Project." No Ceilings: The Full Participation Project. Accessed April 05, 2016. http://noceilings.org/.
- "Women and Leadership." Pew Research Centers Social Demographic Trends Project RSS. 2015. Accessed April 05, 2016. http://www.pewsocialtrends.org/2015/01/14/women-and-leadership/.
- Pfeffer, Jeffrey. "The Ambiguity of Leadership." The Ambiguity of Leadership. Accessed April 21, 2016. http://amr.aom.org/content/2/1/104.short.
- Schoenberg, Judy, Kimberlee Salmond, and Paula Fleshman. "Change It Up! What Girls Say about Redefining Leadership." Girl Scout Research Institute. 2008. http://www.girlscouts.org/content/dam/girlscouts-gsusa/forms-and-documents/about-girl-scouts/research/change\_it\_up\_executive\_summary\_english.pdf.

#### 5. APPENDIX

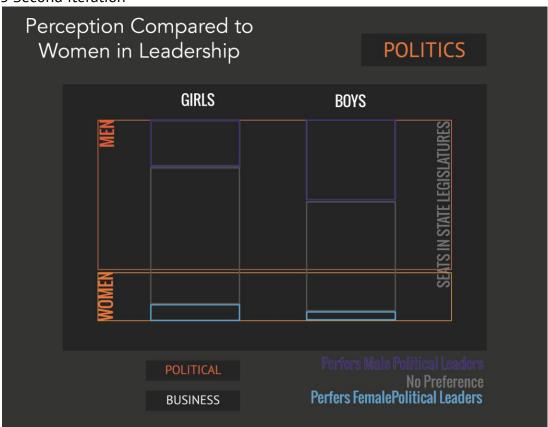
### 1 Aggregated Dataset (original surveys and reports found in resources and references)

	Men	Women	Boys	Girls
Role	preference	preference	preference	preference
Female Political Leader	0.07	0.11	0.04	0.08
Male Political Leader	0.17	0.12	0.4	0.23
Neutral Political Leader	0.74	0.76	0.56	0.69
Men Senate	0.8	0.8	0.8	0.8
Women Senate	0.2	0.2	0.2	0.2
Men House of Representatives	0.81	0.81	0.81	0.81
Women House of Representatives	0.19	0.19	0.19	0.19
Men State Legislators	0.758	0.758	0.758	0.758
Women State Legislators	0.242	0.242	0.242	0.242
Men Governors	0.9	0.9	0.9	0.9
Women Governors	0.1	0.1	0.1	0.1
Men US Federal Court Judges	0.76	0.76	0.76	0.76
Women US Federal Court Judges	0.24	0.24	0.24	0.24
Men US State Court Judges	0.73	0.73	0.73	0.73
Women US State Court Judges	0.27	0.27	0.27	0.27

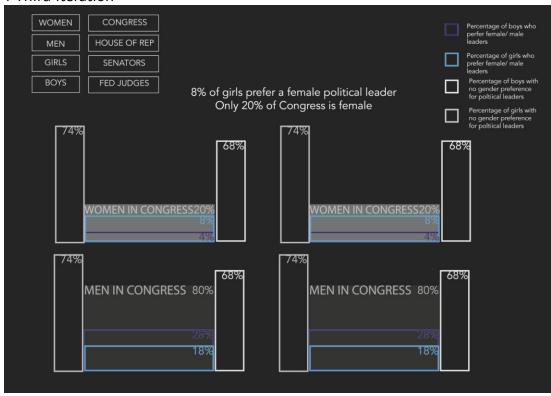
# 2 First Design Concept



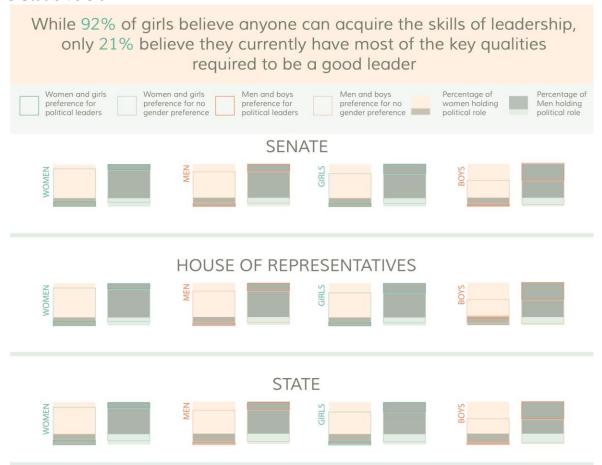
#### 3 Second Iteration



#### 4 Third Iteration

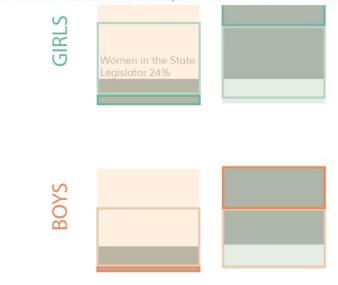


#### 5 Static Version

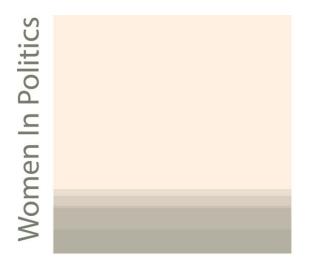


#### 6 Digital Version

8% of girls prefer a female political leader and 69% have no difference in preference. Women comprise 24% of State Legislators.

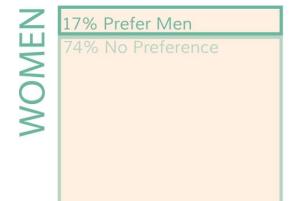


# 7 Final Version (<a href="http://thesis-kellj579.c9users.io/MajorStudio2/index.html">http://thesis-kellj579.c9users.io/MajorStudio2/index.html</a>)





# While 92% of girls believe anyone can acquire the skills of leadership, only 21% believe they currently have most of the key qualities required to be a good leader Men and boys preference for Percentage of Men holding political role Women and Men and boys preference for Percentage of girls preference for political women holding girls preference for no gender political leaders no gender leaders preference preference **SENATE HOUSE OF REPRESENTATIVES** STATE LEGISLATORS **GOVERNORS US FEDERAL COURT JUDGES US STATE COURT JUDGES**



7% Prefer Women

